

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A unit-to-unit data exchange system for exchanging data between units connected to each other via a communication-communications medium, the unit-to-unit data exchange system comprising:

a first unit having for storing-at least one piece of content data of interest that can be exchanged and for encrypting the content data of interest when the content data of interest is exchanged and requesting to exchange data with another unit;

a second unit for storing-having content data of interest to the first unit and for encrypting the content data of interest to the first unit when the content data of interest to the first unit is exchanged; and

an exchange completion data keeping device (i) connected to the first unit and the second unit-units via the communication-communications medium (ii) for keeping first exchange completion data that is a decryption key, and that is necessary, after completion of the a data exchange between the first unit and the second unit-units, for reproducing encrypted content data of interest to the first unit that is obtained by the first unit from the second unit, and (iii) for keeping second exchange completion data that is a decryption key, and that is necessary, after completion of the data exchange between the first unit and the second unit-units, for reproducing encrypted content data of interest to the second unit that is obtained by the second unit from the first unit.

wherein the exchange completion data keeping device includes exchange completion data transmission means for transmitting the first exchange completion data to the first unit and for transmitting the second exchange completion data to the second unit only when the first unit

has successfully received the encrypted content data of interest to the first unit and the second unit
units have has successfully received the encrypted content data of interest to the second unit.

Claim 2 (Currently Amended) The unit-to-unit data exchange system according to claim 1, wherein:

wherein the first unit includes:

first exchange completion data production means for producing the second exchange completion data; and

first exchange completion data transmission means for transmitting the second exchange completion data produced by the first exchange completion data production means to the exchange completion data keeping device[;],

wherein the second unit includes:

second exchange completion data production means for producing the first exchange completion data; and

second exchange completion data transmission means for transmitting the first exchange completion data produced by the second exchange completion data production means to the exchange completion data keeping device; and, and

wherein the exchange completion data keeping device further includes exchange completion data keeping means for keeping the first exchange completion data transmitted from the second exchange completion data transmission means and the second exchange completion data transmitted from the first exchange completion data transmission means so, such that each the first unit, from which the second exchange completion data has been transmitted, can be

identified and the second unit, from which the first exchange completion data has been transmitted, can be identified.

Claim 3 (Currently Amended) The unit-to-unit data exchange system according to claim 2, wherein:

wherein the first unit further includes:

first data conversion means for converting the content data of interest to the second unit that is owned by the first unit to encrypted content data of interest to the second unit that can be reproduced successfully only by using the second exchange completion data; and

first data recovery means for recovering the content data of interest to the first unit that can be reproduced successfully, from encrypted content data of interest to the first unit that is received from the second unit, by using the first exchange completion data; and, and

wherein the second unit further includes:

second data conversion means for converting the content data of interest to the first unit that is owned by the second unit to encrypted content data of interest to the first unit that can be reproduced successfully only by using the first exchange completion data; and

second data recovery means for recovering the content data of interest to the second unit that can be reproduced successfully, from encrypted content data of interest to the second unit that is received from the first unit, by using the second exchange completion data.

Claim 4 (Currently Amended) The unit-to-unit data exchange system according to claim 1, wherein:

the first unit further includes first exchange completion data production requesting means for requesting the exchange completion data keeping device to produce the second exchange completion data;

the second unit further includes second exchange completion data production requesting means for requesting the exchange completion data keeping device to produce the first exchange completion data; and

the exchange completion data keeping device further includes:

exchange completion data production means for producing the first exchange completion data in response to the request from the first exchange completion data production requesting means and for producing the second exchange completion data in response to the requests from the first and the request from the second exchange completion data production requesting means; and

exchange completion data keeping means for keeping the first exchange completion data and the second exchange completion data produced by the exchange completion data production means so that each requesting the first unit and the second unit can be respectively identified.

Claim 5 (Currently Amended) The unit-to-unit data exchange system according to claim 4, wherein:

each of the first and second units further includes:

— data conversion means for converting first content data owned by the respective unit to encrypted content second data that can be reproduced successfully only by using the

respective exchange completion data; and

____ data recovery means for recovering the content data of interest to the respective unit that can be reproduced successfully, from encrypted content data received from another of the first and second units, other unit by using the respective exchange completion data transmitted from the exchange completion data transmission means;

the exchange completion data keeping device further includes conversion process data production/transmission means for (i) producing first and second conversion process data respectively used for converting the first content data to the second encrypted content data that can be reproduced successfully by using the first and second exchange completion data, and (ii) transmitting the first conversion process data to the second unit and the second conversion process data to the first unit;

the data conversion means of the first unit converts the first content data of interest to the second unit to the second encrypted content data of interest to the second unit by using the second conversion process data transmitted from the conversion process data production/transmission transmission means; and

the data conversion means of the second unit converts the first content data of interest to the first unit to the second encrypted content data of interest to the first unit by using the first conversion process data transmitted from the conversion process data production/transmission transmission means.

Claim 6 (Previously Presented) The unit-to-unit data exchange system according to claim 5, wherein:

the first conversion process data is a first encryption key;
the first exchange completion data is a first decryption key corresponding to the first encryption key;
the second conversion process data is a second encryption key; and
the second exchange completion data is a second decryption key corresponding to the second encryption key.

Claim 7 (Currently Amended) The unit-to-unit data exchange system according to claim 1, wherein:

each of the first and second units further includes communication result notification means for notifying the exchange completion data keeping device of a communication result when a communication session with another of the first and second units other unit is terminated; and
the exchange completion data transmission means determines whether or not both of the first unit and the second unit units have successfully received the respective encrypted content data of interest based on the communication results from the communication result notification means of the first unit and that of the second unit.

Claim 8 (Currently Amended) The unit-to-unit data exchange system according to claim-
6,7, wherein:

the The respective communication result of the first unit and the second unit is information indicating whether or not the respective encrypted content data of interest has been

received successfully; and

the exchange completion data transmission means transmits exchange completion data if the exchange completion data transmission means receives information indicating that the respective encrypted content data of interest has been received successfully from both the first unit and the second unit-units.

Claim 9 (Cancelled)

Claim 10 (Currently Amended) The unit-to-unit data exchange system according to claim 1, wherein each of the first unit and the second unit-units further include includes resend requesting means for requesting another of the first and second units other unit to resend the respective encrypted content data of interest if the respective unit fails to fully receive the respective encrypted content data of interest from the other of the first unit and second unit.

Claim 11 (Currently Amended) A unit for exchanging content data owned by the unit with content data of interest to the unit that that is owned by another unit,

wherein the unit and the other unit encrypt the content data owned thereby, respectively,
when the respective content data is exchanged therebetween,

wherein the unit comprises comprising:

exchange completion data production means for producing first exchange completion data that is a decryption key, and that is necessary for reproducing the encrypted content data that is obtained by encrypting the content data owned by the unit;

_____ exchange completion data registration means for registering the first exchange completion data produced by the exchange completion data production means at an exchange completion data keeping device for keeping exchange completion data; and

_____ exchange completion data obtaining means for obtaining, from the exchange completion data keeping device, second exchange completion data that is a decryption key, and that is necessary for reproducing encrypted content data obtained from the other unit when a communication session with the other unit is terminated, and

wherein the exchange completion data keeping device transmits (i) the first exchange completion data to the other unit, and (ii) the second exchange completion data to the unit, the transmission of the first and second exchange completion data being performed only when the unit and the other unit have successfully received encrypted content data of interest.

Claim 12 (Currently Amended) The unit according to claim 11, further comprising:

data conversion means for converting content data of interest to the other unit that is owned by the unit to encrypted content data of interest to the other unit that can be reproduced successfully only by using the first exchange completion data; and

data recovery means for recovering the content data of interest to the unit that can be reproduced successfully, from encrypted content data of interest to the unit that is received from the other unit, by using the second exchange completion data obtained by the exchange completion data obtaining means.

Claim 13 (Previously Presented) The unit according to claim 12, further comprising

exchange history storing means for storing a history of data exchanges made with other units, wherein:

the data conversion means changes a data conversion method based on the exchange history; and

the exchange completion data production means changes a method of producing exchange completion data based on the exchange history.

Claim 14 (Currently Amended) The unit according to claim 11, further comprising resend requesting means for requesting the other unit to resend encrypted content data of interest to the unit if the unit fails to fully receive the encrypted content data of interest to the unit.

Claim 15 (Currently Amended) A unit for exchanging content data owned by the unit with content data of interest to the unit that is owned by another unit, comprising:

wherein the unit and the other unit encrypt the content data owned thereby, respectively, when the respective content data is exchanged therebetween,

wherein the unit comprises:

exchange completion data production requesting means for requesting an exchange completion data keeping device for keeping exchange completion data to produce first exchange completion data that is a decryption key, and that is necessary for reproducing the encrypted content data of interest to the other unit that is obtained by encrypting the content data owned by the unit; and

exchange completion data obtaining means for obtaining, from the exchange

completion data keeping device, second exchange completion data that is a decryption key, and
that is necessary for reproducing encrypted content data obtained from the other unit when a
communication session with the other unit is terminated, and

wherein the exchange completion data keeping device transmits (i) the first exchange
completion data to the other unit, and (ii) the second exchange completion data to the unit, the
transmission of the first and second exchange completion data being performed only when the
unit and the other unit have successfully received encrypted content data of interest.

Claim 16 (Currently Amended) The unit according to claim 15, further comprising:

conversion process data reception means for receiving conversion process data used for
converting the content data of interest to the other unit that is owned by the unit so that the
encrypted content data of interest to the other unit to be transmitted to the other unit can be
reproduced successfully by using the first exchange completion data sent from the exchange
completion data keeping device;

data conversion means for converting the content data of interest to the other unit that is
owned by the unit by using the conversion process data received by the conversion process data
reception means; and

data recovery means for recovering the content data of interest to the unit that can be
reproduced successfully from encrypted content data of interest to the unit and obtained from the
other unit by using the second exchange completion data obtained by the exchange completion
data obtaining means.

Claim 17 (Currently Amended) The unit according to claim 16, further comprising:

exchange history storing means for storing a history of data exchanges made with other units; and

conversion method notification means for notifying the exchange completion data keeping device of a conversion method used by the data conversion means based on the exchange history,

wherein the data conversion means converts the content data of interest to the other unit that is owned by the unit by using conversion process data using the specified conversion method sent from the exchange completion data keeping device.

Claim 18 (Currently Amended) The unit according to claim 15, further comprising resend requesting means for requesting the other unit to resend encrypted content data of interest to the unit if the unit fails to fully receive the encrypted content data of interest to the unit.

Claim 19 (Currently Amended) An exchange completion data keeping device used in a system for exchanging content data between units connected to each other via a communication-communications medium, the exchange completion data keeping device comprising:

exchange completion data keeping means for keeping exchange completion data that is a decryption key and that is necessary for reproducing encrypted content data that is encrypted and exchanged between a first unit and a second unit; and

exchange completion data transmission means for transmitting (i) exchange completion data that is necessary for reproducing encrypted content data of interest to the first unit and that

is obtained by the first unit to the first unit and (ii) transmitting exchange completion data that is necessary for reproducing encrypted content data of interest to the second unit and that is obtained by the second unit to the second unit only when both of the first unit and the second unit units have successfully received encrypted content data of interest.

Claim 20 (Currently Amended) The exchange completion data keeping device according to claim 19, further comprising:

exchange completion data production means for producing the exchange completion data in response to a request from the first unit and the second unit-units; and

exchange completion data keeping means for keeping the exchange completion data produced by the exchange completion data production means so that the first unit and the second each requesting unit can be identified.

Claim 21 (Currently Amended) The exchange completion data keeping device according to claim 20, further comprising conversion process data production/transmission means for (i) producing conversion process data such that exchanged encrypted content data can be reproduced successfully at by the first unit and the second unit-units by using the exchange completion data produced by the exchange completion data production means, and (ii) transmitting the conversion process data to the first unit and the second unit-units.

Claim 22 (Currently Amended) The exchange completion data keeping device according to claim 19, wherein the exchange completion data transmission means determines whether or not

~~both of the first unit and the second unit units have successfully received encrypted content data of interest based on communication results from the first unit and the second unit units.~~

Claim 23 (Currently Amended) The exchange completion data keeping device according to claim 22, wherein:

the communication result is information indicating whether or not the encrypted content data of interest has been received successfully; and

the exchange completion data transmission means transmits exchange completion data when receiving information indicating that the encrypted content data has been received successfully from the first and second units.

Claim 24 (Currently Amended) The exchange completion data keeping device according to claim 19, further comprising exchange completion data deletion means for deleting exchange completion data kept by the exchange completion data keeping device if a predetermined condition is satisfied met.

Claim 25 (Currently Amended) The exchange completion data keeping device according to claim 24, wherein the predetermined condition is a condition such that the exchange completion data deletion means deletes exchange completion data transmitted to the first unit and the second unit units from the exchange completion data transmission means, if the first unit and the second unit units have successfully received the transmitted exchange completion data.

Claim 26 (Currently Amended) The exchange completion data keeping device according to claim 24, wherein the predetermined condition is a condition such that the exchange completion data deletion means deletes the exchange completion data registered by the first unit and the second unit, if the exchange completion data deletion means is notified from either the first unit or the second unit that the encrypted content data of interest has not been received successfully.

Claim 27 (Currently Amended) A computer-readable recording medium having a program recorded thereon, the program for instructing a computer device to exchange content data of interest that is owned by the computer device with content data of interest to the computer device that is owned by another computer device, the computer device and the other computer device encrypting the content data of interest owned thereby, respectively, when the content data of interest is exchanged therebetween, and the program causing the computer device to execute a method comprising the steps of:

instructing the computer device to produce first exchange completion data that is a decryption key, and that is necessary for reproducing the encrypted content data of interest to the other computer device that is obtained by encrypting the content data of interest to the other computer device that is owned by the computer device;

instructing the computer device to register the produced first exchange completion data produced by the computer device at an exchange completion data keeping device for keeping exchange completion data; and

instructing the computer device to obtain, from the exchange completion data keeping

device, second exchange completion data that is a decryption key, and that is necessary for reproducing encrypted content data of interest to the computer device that is obtained from the other computer device when a communication session with the other computer device is terminated,

wherein the exchange completion data keeping device transmits (i) the first exchange completion data to the other computer device, and (ii) the second exchange completion data to the computer device, the transmitting of the first and second exchange completion data being performed only when the computer device and the other computer device have successfully received encrypted content data of interest.

Claim 28 (Currently Amended) A computer-readable recording medium having a program recorded thereon, the program for instructing a computer device to exchange content data of interest that is owned by the computer device with content data of interest to the computer device that is owned by another computer device, the computer device and the other computer device encrypting the content data of interest owned thereby, respectively, when the content data of interest is exchanged therebetween, and the program causing the computer device to execute a method comprising the steps of:

instructing the computer device to request an exchange completion data keeping device for keeping exchange completion data to produce first exchange completion data that is a decryption key, and that is necessary for reproducing the encrypted content data of interest to the other computer device that is obtained by encrypting the content data of interest to the other computer device that is owned by the computer device; and

instructing the computer device to obtain, from the exchange completion data keeping device, second exchange completion data that is a decryption key, and that is necessary for reproducing encrypted content data of interest to the computer device that is obtained from the other computer device when a communication session with the other computer device is terminated,

wherein the exchange completion data keeping device transmits (i) the first exchange completion data to the other computer device, and (ii) the second exchange completion data to the computer device, the transmitting of the first and second exchange completion data being performed only when the computer device and the other computer device have successfully received encrypted content data of interest.

Claim 29 (Currently Amended) A computer-readable recording medium having a program recorded thereon, the program for instructing a computer device, which is used in a system for exchanging content data of interest between computer devices connected to each other via a communication communications medium, to function as:

exchange completion data keeping means for keeping exchange completion data that is a decryption key, and that is necessary for reproducing encrypted content data of interest that is encrypted and exchanged between a first computer device and a second computer device; and

exchange completion data transmission means for transmitting exchange completion data that is necessary for reproducing encrypted content data of interest to the first computer device that is obtained by the first computer device to the first computer device and transmitting exchange completion data that is necessary for reproducing encrypted content data of interest to

the second computer device that is obtained by the second computer device to the second computer device, the transmitting of the exchange completion data being performed only when both of the first and second computer devices have successfully received encrypted content data of interest.